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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/074,208	02/12/2002	Charles E. Taylor	SHPR-01041USO SRM	4381

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EXAMINER	
TRAN, THAO T	

ART UNIT	PAPER NUMBER
1711	

DATE MAILED: 05/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/074,208	TAYLOR, CHARLES E.	
	Examiner	Art Unit	
	Thao T. Tran	1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 February 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-52* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-52* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *2/15/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This is in response to the Reply filed 2/15/2005.

2. Claims 1-52 are currently pending in this application.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (US Pat. 4,789,801).

Lee teaches an ion generator and an air conditioner (loud speaker), comprising a first array of electrodes; a second array of electrodes downstream from the first array; and a voltage generator coupled to the electrodes to create an airflow from the first to the second electrodes; each electrode is of one-piece construction; the first electrodes being ion emitters and pin-shaped, whereas the second electrodes ion collectors (see Figs. 2-3; col. 5, ln. 37-65; col. 6, ln. 26-42).

The second electrodes in Lee's invention are solid in structure, having a leading nose and a two side walls (see Fig. 3), not with the ends bent back to meet each other to make hollow electrodes. However, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, that specific configurations of the electrodes would have been an

obvious matter of design choice. Since the second electrodes in Lee's invention are also collector electrodes, they would work equally well because the collector electrodes collect ion particles on the surface. Moreover, specific configurations of the electrodes would have been determined by routine experimentation in order to achieve maximal benefits attendant therewith. See MPEP 2144.04, section IVB.

In regards to claims 21-23, 26-37, 48-50, it has been settled within the skill in the art that the manner of operation, intended use, or how the product is made, would have insignificant patentable weight when an apparatus claim is being considered. See MPEP 2114.

5. Claims 1-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakakibara et al. (US Pat. 4,643,745).

Sakakibara teaches an air cleaner, which includes an ion generator, comprising a first array of electrodes; a second array of electrodes downstream of the first array; a voltage generator coupled to the electrodes to create an airflow from the first to the second electrodes; each electrode is of one-piece construction; the first electrodes being ion emitters and pin-shaped, whereas the second electrodes ion collectors (see Figs. 1-4, 10; col. 2, ln. 57-67; col. 3, ln. 46-67).

Sakakibara's second electrodes are solid in structure, having a leading nose and a two side walls (see Figs. 2, 6, 9), not with the ends bent back to meet each other to form hollow electrodes. However, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, that specific configurations of the electrodes would have been an obvious matter of design choice. Since the second electrodes in Lee's invention are also collector electrodes, they would work equally well because the collector electrodes collect ion particles on

the surface. Moreover, specific configurations of the electrodes would have been determined by routine experimentation in order to achieve maximal benefits attendant therewith. See MPEP 2144.04, section IVB.

In regards to claims 21-23, 26-37, 48-50, it has been settled within the skill in the art that the manner of operation, intended use, or how the product is made, would have insignificant patentable weight when an apparatus claim is being considered. See MPEP 2114.

Response to Arguments

6. Applicant's arguments filed on 2/15/2005 have been fully considered but they are not persuasive.

In response to Applicants' demand that the examiner provide a motivation and/or a secondary reference for modifying the prior art in such a way as to produce the claimed invention, it is hereby noted that the examiner cites the MPEP section to provide support for the rejection. Inclusion of a motivation and/or a secondary reference is thus not necessary.

The examiner maintains the same arguments as presented in the prior Office action of 12/1/2004. The same arguments are incorporated herein.

Applicants provide the advantages of the presently claimed configurations of the electrodes over the prior art. However, it is not found persuasive. As pointed out in the previous Office action and paragraphs 4-5 above, a specific configuration of an electrode would have been a matter of design choice, determined by routine experimentation in order to bring forth maximal benefits attendant therewith. See MPEP 2144.04, section IVB. Moreover, whether the electrodes

are solid or hollow, since they have the same surface area, they would have worked equally well in attracting charged particles in the air stream.

Applicants contend that an electrode that is "formed to have a leading nose and two side walls with ends to the side walls bent back to substantially meet each other will be less expensive to produce than a solid electrode having the same dimension". However, it would not be obvious to one of ordinary skill in the art to envision that such electrode would be less expensive than a solid one since the cost of an electrode would depend on different parameters, such as material, size, and workmanship.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thao T. Tran whose telephone number is 571-272-1080. The examiner can normally be reached on Monday-Friday, from 9:00 a.m. - 5:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

tt
May 16, 2005

Thao Tran
THAO T. TRAN
PATENT EXAMINER